Erich Gamma, *IBM Software Group,*

Rational Distinguished Engineer - Jazz Technical Lead

In software development, IBM Rational Team Concert makes a high level of individual and team productivity, faster development cycles, and the creation of qualitatively superior software possible. The new version 2.0 was presented at the Rational Software Developer Platform 2009 in Zurich.

Erich Gamma is a Distinguished Engineer for Rational in the Rational Software department of the IBM Software Group in Zurich, and he is currently working on the Rational Team Concert project. The Swiss computer scientist became well-known through his work on Eclipse and as the co-author of the book „Design Patterns – Elements of Reusable Object-Oriented Software".
Mr Gamma was available to us for a short discussion, and he explained right at the start how Eclipse is influencing his current work.

Erich Gamma: „Eclipse was one of my dream projects, in which we had the opportunity to ask ourselves the fundamental question: what should the ideal development environment look like? Eclipse has quite clearly greatly influenced the way forward. We learnt a lot with Eclipse, and not just with respect to architecture and technology, but also with regard to the development process itself; i.e. how can we develop software when we are physically dispersed, how can tools be implemented effectively, how can we work together efficiently in a team and how can we form a picture of what is currently happening? It has become particularly clear, just how important transparency is for software development. Eclipse is an open source development product, and as is usual with open source, the development process is transparent. In this way we were personally able to satisfy ourselves of the effectiveness of this approach, as transparency means feedback. The transparency makes a direct exchange with the software customers possible, as well as the setting up of a community. The greatest advantage is the resultant win-win situation from which both the producer and the customer benefit. I would like to integrate these strengths into the future software development, come what may."

Mr Gamma is currently working for the Rational Team Concert project - a completely interactive development environment for large teams dispersed throughout a company. He explains the essential requirements for the productive collaboration within a team.

Erich Gamma: „We started with the Rational Team Concert project four and a half years ago. We wanted to rethink the development environment from scratch and organize it optimally to assist with collaboration within the team. An important support for efficient development is to know what is happening at all times. Who is doing what? Why is he doing that? In this way the development process is transparent. It assumes that the developers know the software artifacts very well and are informed about the areas of responsibility of the team as well as the existing rules. These rules

must therefore be explicitly formulated and the on-going software project must be completely transparent. Basically, we wanted to implement these objectives with Team Concert, and to my mind we have for the most part done so, as we have been working together for more than two years in a globally dispersed team, and have been able to greatly increase productivity."

Rational Team Concert enables the transparent organization of the software development process. Each team member thereby has the opportunity to track the project details and the course of the project. Why is this transparence crucial?

Erich Gamma: „Complete transparency offers many advantages: each project member knows where the project stands. Moreover, traceability is guaranteed; for example, we can check which changes were carried out and why. I am in a position to track the entire development process, from the plan right up to the code. If problems arise, I have the ability to identify the cause and to resolve it. Each team member is able to react and to undertake the necessary corrective measures if there is a problem. Therefore, when a complication arises, I don't need to wait two or three days before reacting to it. In a development environment which makes efficient collaboration within the team possible, I can resolve problems immediately. If a screen is broken, I receive a screen notification. I see the way things are moving, identify the reason for the changes and know whether a so-called fix is in progress. Thereby, as a global team, we have become considerably more efficient and can also work together efficiently when dispersed."

With the new version 2.0 of Rational Team Concert, software provision will be further optimized, automated and simplified. Mr Gamma, please explain what's new in this version.

Erich Gamma: „With regard to version 2.0 of Rational Team Concert, I would basically like to mention four improvements. The first and highly important development concerns scalability. We have invested a lot in the optimization of server performance, so that even an intensive, simultaneous utilization by numerous users no longer poses a problem. Today the scalability is guaranteed; we have carried out load tests and simulated the concurrent access of 1500 users. Moreover, we have undertaken a fine tuning in order to ensure that only authorized persons may access the relevant data.

The second important optimization concerns the planning support – agile planning. Customers have informed us that they would like additional functions for this, and we have therefore improved the SCRUM support. SCRUM is a powerful tool for planning, release and situation planning. In addition, we have implemented the optimization of the role support and planning in the WebUI as requested by the users. For this reason, we have greatly improved the WebUI, so that today, the complete planning process can be carried out in it.

The third innovation concerns the integration of Rational Team Concert with other products. We call this initiative Collaborative Application Lifecycle Management; this involves ensuring the interaction of, for example, Rational Team Concert with Rational Quality Management. Rational Team Concert supports the open service for Lifecycle Collaboration REST APIs, with which the aforementioned integration is possible.

Fourthly and finally, the integration between ClearQuest and ClearCase has been improved through the provision of bridges and various importers."

To conclude the interview, Erich Gamma described how the Rational Portfolio, and in particular Rational Team Concert, will develop in the future.

Erich Gamma: „The underlying platform, Jazz Foundation, will play a central role. We are planning to build other products on top of it. In the meantime we have Rational Team Concert, Rational Quality Manager and Rational Requirement Composer. This range will be extended by project management and enterprise reporting tools. Moreover, as mentioned we are pressing ahead with the integration of the product portfolio as well as with other non-Jazz products. The OSLC Open Source Lifecycle Collaboration will play an important role. Another line of attack concerns the way we support the tools and practices provided by the Measured Capability Improvement Framework. On the one hand we want to ensure that the users of our tools have the opportunity to improve their knowledge of the requested practices, for example „interactive development", and on the other hand we also want to receive feedback from their usage in practice. These are the most important development axes of the Jazz portfolio as well as of Rational Team Concert."

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http://www-01.ibm.com/software/awdtools/rtc/standard/features/?S_CMP=wspace